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MUNICIPAL REGULATION OF PUBLIC UTILITIES

What are the legal areas of regulating public utilities? What are the elements of a modern public utility franchise? What are effective administrative procedures in protecting the public interest, and what factors influence the determination of utility rates?

Utility services commonly include public transit, the services of gas for heating, electricity for lighting and power, telephone communications, and water for various uses. Also the term includes distribution of steam heat and taxicab operation.

The distribution of utility services and products by privately owned companies has several important differences from other private business enterprises. The differences which mark the public utilities field are: (1) The utility company generally operates without competition; (2) has an obligation to serve all who apply for service; and (3) makes a tremendous investment in relation to revenues received. Public utility services are so vital that public regulation is necessary to insure good service at equitable rates. Furthermore, these industries use the public streets and highways for distribution of their products or services.

Because of the interest of municipal officials, MIS in 1953 published Report No. 109, *Administration of Utility Franchises*, which basically considered what a good franchise should contain and how it should be administered. In November, 1960 Report No. 202, *City Government Relations with Public Utilities*, was issued. This report concentrated on matters of common interest and procedures for accomplishing common objectives. The emphasis of the report was on city and utility company cooperation, not regulation.

In preparing Report No. 202 it became clear that there was a need to revise Report No. 109, emphasizing all regulation as well as the proper provisions of a franchise. This report therefore stresses regulation and explains the basic elements of rate control. It supersedes Report 109, and complements Report 202. *City Government Relations with Public Utilities* was based on questionnaire responses from 130 cities roughly distributed by geographic area and population grouping. Some of the information in this report is based on the replies originally received for Report 202.

Legal Areas of Regulation

The regulation of utility companies is divided into three general categories. First, rates and charges for service are subject to control including the review of accounting practices, reasonableness of expenses, capital costs, and managerial efficiency. The second area of regulation concerns quality and continuity of service, involving voltage regulation, line extension policies, and gas heating pressure. The third category encompasses regulation for the use of the streets for installation of distributing equipment and generally conducting the utility business on the public ways.

Federal Regulation. Federal regulatory commissions only have jurisdiction over interstate utility operations. The Interstate Commerce Commission regulates common carriers. The Federal Communications Commission regulates telephone and telegraph. The Federal Power Commission has jurisdiction over the interstate distribution of electricity. The FPC also regulates gas pipeline companies transporting gas to local distributing companies.

In many cities served with natural gas the activities of the Federal Power Commission in fixing gas pipeline rates charged to local utility companies are of the utmost importance. Most of the

increases in the cost of natural gas to the consumer in the past 10 years have come about through increases in gas pipeline charges paid by the local gas distributor and then passed on to the consumer. Admittedly these cases before the Federal Power Commission seem far removed from city activities. Yet the rate increases granted in Washington, D. C., for example, affect directly the pockets of local consumers. Some method of joining of cities in effecting consumer representation before the FPC would be of aid and benefit to the Commission and to urban consumers. The FPC staff perform audits and reports of utility costs in these cases which greatly clarify issues for the parties. The views of city representatives on these issues have an important effect in FPC decisions.

In many cases, local distributing companies will pay rates put into effect by the Federal Power Commission pending completion of hearings. These rates are collected by pipeline companies subject to refund. Cities must provide in their franchise or in rate regulatory ordinances for these refunds to flow through to consumers. Refunds to consumers are generally made as deductions from current billings. A simple yet equitable method of calculating amounts of refunds to consumers should be set forth so that large sums are not wasted in recalculating all bills during the applicable refund period. Some cities have used customer individual purchases of cubic feet of gas in an average month in ratio to the total sales in that same month to apportion the refund dollars (held by the local company) back to the consumers.

State Power To Regulate. A state regulates utilities under the police power. This is the power that the legislature exercises over all matters involving the public safety, health, and welfare. The police power of the state is limited only to the degree of state and federal constitution prohibitions against imparing the obligation of contracts, the taking of property without due process of law, and the denying of equal protection of the laws to all persons. Thus the power to fix rates and charges, for example, comes under a limitation of the due process clause inasmuch as the measure of property value can be made in terms of its earning capacity. Rates therefore must provide for reasonable earnings for the police power regulation of utilities to be valid.

State Commission Regulation. State utility commissions exist in all but a few states, with many variations in regulatory powers and procedures. It is important for municipal authorities to determine their obligations, duties, and rights in joining in state commission activities or in carrying out the powers delegated to the cities by the state commission. Appendixes A and B show the pattern of regulatory authority vested in state commissions. In general, state commissions have power to grant service areas to utility companies; to regulate standards of safety, service, financing, and accounting; and to maintain either direct or appellate jurisdiction over rates and charges. A few examples of state utility commission powers will illustrate regulatory patterns.

In Ohio statutes specifically grant municipalities the power to fix public utility rates by city ordinance, but the utility has the right to appeal the ordinance to the state utility commission, and to the state supreme court. Ohio statutes further require that utility companies must have permission of the city to use city streets for installation of their structures, and the Ohio Constitution gives cities the right to acquire, construct, and operate public utilities.

In Iowa, utilities are under direct control of municipalities in which they operate. In Texas, cities of 2,000 or more population have power to regulate rates and service of utilities operating within their boundaries. In Pennsylvania, the state commission has direct and full control over utility regulation. In Kansas, cities have primary power to regulate utilities operating entirely within the city area, with right of the company to appeal.

Delegation of Power by State. A municipality has power to regulate utilities as set forth in the state constitution, state statutes, and city charter. City regulation of utilities in most states is largely control of street uses and safety standards for utility installations. Rates in most states are controlled by a state utility commission with the cities having the right to appear for or against rate changes.

Local Regulatory Activities. Cities should consider the public safety, welfare, and economics relative to the use of utility services by the public to be of paramount importance in determining regulatory procedures. Some of the major practical applications of utility regulation which cities can do are listed below. These may require action by one or more departments in particular cities.

1. Utility property and equipment should be installed on or in city streets only after city approval. Plans and drawings of all utility transmission and distribution properties in the city area should be on file with an appropriate city agency. This could be the department of public utilities, or public works, or other agency. The city agency should have access to plans and drawings held by the company and require verification of locations of equipment installations. Plans should identify size, type, capacity, and descriptive details of equipment and properties of the utility system in the city area.

2. Street openings by utility companies to install, repair, or remove facilities should require prior permits to be issued by the city. Permit fees and deposits should be sufficient to cover cost of issuance of permit and the necessary inspections by city forces. Permits should require drawings to be submitted of proposed street openings and must require complete and satisfactory restoration of street foundation, fill, and surfaces. Adequate insurance coverage for the city should be part of the permit application executed by the company unless covered by a general bond or insurance policy protecting the city.

3. Cities should establish procedures that utility companies must follow in emergencies requiring opening or blockading of streets without prior notice. Fire, police, and traffic departments should have notice as soon as possible; notice to mass transit operation also should be required. Permits and necessary reports should be filed with city departments within 24 hours of the ending of the emergency.

4. A city should provide for inspection of safety standards and service quality standards. It should exercise control over property and equipment installations which are or may be in violation of standards or which may improperly interfere with general public activities or endanger other private property.

All city agencies that sponsor, control, or approve proposed building or similar projects and business developments should notify utility companies of permits issued. Plans of city construction projects, such as sewer lines and water mains, should be provided to utility companies.

6. Large cities should actively and aggressively participate in all hearings or proceedings where city consumer interests are involved. This means filing intervening petitions in state or federal commission cases and submitting briefs, letters, or statements relative to consumer interests.

Area Standards and Rates. Cities in metropolitan utility areas should coordinate their standards for installation of equipment. In many cases, as in Cincinnati, Ohio, this is accomplished by the local utility company showing the advantage of such standardization of equipment to the local communities. Lack of cooperation by any one community can result in higher costs to the utility and thus higher rates because of the specialized standards.

Rates in a metropolitan utility area will vary because of factors affecting costs and investment in properties to serve individual cities. In the Cincinnati area a few cities are wholly encircled by the major city and rates for such cities are generally identical with the major city. However, small cities near a large city may have service vastly different from the over-all service to the major city. For example, a city may have a high daily peak demand measured in kilowatts of power, but this service may be used only a comparatively few hours of the day. This service will result in higher unit costs measured in hours of use (kilowatt hours) of the service. Since cities are autonomous units, the costs applicable to a particular city should not be borne by other cities; thus there develop differing rates in cities in the same general utility area.

The Municipal Franchise

The Franchise. A public utility franchise is a grant by a governmental authority conferring to a private organization the right to use the streets and public ways for private purposes. These purposes would include the placing upon or under the city streets such utility equipment as poles, wires, pipes, ducts, mains, and tracks for distributing and providing public utility services, including gas, electricity, telephone, water, and transit. In exchange for such franchise, the city may specify terms and conditions for the grant and continuation of the franchise.

A franchise is an enforceable contract with the full protection of laws relating to contracts. Franchise contracts are generally construed strictly in favor of the public and against the grantee. A franchise contract is subject to revocation for sufficient cause. The sufficient cause may be specifically set forth in the terms and conditions of the franchise or otherwise. In general, the courts would determine whether or not a default is a matter which is vital to the grant, the effect of which will constitute a breach or forfeiture of the franchise.

Some Franchise Conditions. A municipality in granting a franchise may establish terms and conditions consistent with state law upon which the franchise will be granted and continued. State laws differ, and it is thus impossible to cover all the items that might be included in a franchise. A few of the more important items are discussed in detail in this section. Requirements, conditions, and terms frequently covered include the following: (1) the time period of the franchise; (2) street use controls and service standards; (3) inspection of records, equipment, and so on; (4) rate base and utility service charges; (5) procedures for municipal acquisition; (6) city use of utility equipment; (7) franchise fees and free service; (8) power to grant other franchises; (9) power to require removal or relocation of company property as deemed necessary for public use of streets; (10) service standards; and (11) requirement that the utility company purchase liability insurance that protects the city from any possible liability for injuries or damages.

The Time Period of a Franchise. Franchises may be classified according to their duration as perpetual, long-term, short-term, and indeterminate. The duration of a utility company franchise is an important factor in evaluating the desirability of its securities in the financial market. A short-term franchise is generally considered as under 20 years. These franchises generally provide for re-examination of terms and conditions at expiration dates without formal surrender of the franchise. Indeterminate franchises generally may be terminated at any time, with payment of fair compensation for the property of the utility as a general condition for termination of utility operations. If the company service is unsatisfactory, the franchise may be terminated, and the property may be purchased by city and operated or resold to another utility to render competent service. The hoped-for effect of the franchise is to put the utility upon its best behavior.

The property required to provide gas, electric, telephone, and water represents a large investment of capital funds in comparison to investments in most commercial enterprises. The term of a franchise should consider the use and depreciation of property for a period long enough to amortize the investment with reasonable rates to consumers. Long-term franchises can be made palatable with specific conditions regarding service, and with the right of the city to purchase at periodic intervals or upon giving notice of intent to acquire. It may be advisable to use a long-term franchise with adequate control terms and conditions based upon continuation of proper service and rates. Evidence of improper service can be stated in terms of failure to meet standards. Rates can be associated with proof of efficient operations at reasonable cost.

Public transit companies require much less property investment per dollar of revenue received than other utility companies, particularly as bus transportation generally has replaced street cars. Transit properties also are more readily saleable, mobile, and more readily improved with new equipment, but transit business today is much more subject to decline in revenues. These differences would indicate that short franchise periods are practical for transit companies, although proper terms and conditions can make even a long-term franchise a flexible instrument. Proper conditions can develop the incentives to retain the franchise and result in continuous service at reasonable fares.

The private utility company must earn an equitable return on its investment. This incentive cannot be overlooked because private business will not develop or improve a business which it must give up in a short time. A long-term franchise of 20 years or more must contain strict control of the following:

1. Service must be rendered by company as required or ordered by the city.

2. The city has the responsibility to fix fares or rates to cover costs of the service that city requires or orders.

3. Rates, fares, revenues, expenses, and net income must be examined at short intervals

(monthly for transit, water; annually for electric, gas) with reduction or increase in rates or fares as the actual needs are proven factually to maintain an agreed level of net income for six-month or annual periods.

4. Disagreements should be settled by established procedures, including arbitration.

5. The franchise may be terminated for breach thereof, and provision should be made for acquisition of utility property at any time upon agreed notice.

A Franchise Example. A 25-year franchise granted to the Cincinnati Transit Company contains provisions favorable to the operating company, as follows:

1. An annual amount of recovery of prior year's losses in an agreed amount.

2. Semiannual review of revenues, expenses, and net income with provision for decrease or increase in fares to maintain a return measured by an agreed percentage of capital.

3. Provision that city has power to require service, concomitant with the responsibility to fix fares to cover all costs of the required service.

4. Provision for arbitration of disagreements.

Provisions favorable to the city include:

1. City controls and specifies service which company must provide; city approves expense budgets.

2. City controls all additions and retirements of property and investment of funds.

3. Provision for termination of franchise on any breach thereof, and provision for acquisition of the system by the city on one year notice to the company, at par valuation of capital then outstanding or upon eminent domain proceedings.

It is the view of the city that this franchise gives the company real incentives for developing the transit operation into a going concern with a reasonable profit potential. Any indication of financial or operating difficulty or lowering of service standards set by the city can be met with termination or acquisition by the city with loss of valuable rights to the company. This franchise has survived 10 years under inflationary economic conditions and generally unfavorable conditions in the transit industry.

Street Use Controls. Street use controls include the supervision of installations of all physical property: poles, pipes, wires, tracks, and other utility facilities. The street use controls should further require city approval of plans for all installations or changes, with copies on file with the appropriate city department. The purpose of such supervision is to provide safety for persons using the streets, for prevention of damage to other private property, and for general public safety.

Service Standards. Control and inspection of quality standards would include the heat content of gas in B.T.U.'s; gas pressure; voltage standards for electricity; operating schedules for transit buses; nontoll charges for telephone calls; and purity of water and water pressure. Extensions of service which will increase costs, and reductions of service which will decrease costs, should be subject to approval of the city prior to the time when such changes in service are to be effective.

Accounting Records Inspection. The right to inspect and audit company records and reports should be clearly established in the franchise. The requirement of periodic reports of business operations provides a means of keeping information up to date so that changes from prior operations can be noted and examined.

Regulation of Rates and Charges. The power to regulate and fix public utility rates has been declared by the courts to be a legislative power of government which is capable of being delegated by the state to municipalities. Upon such delegation of power, the city council, in fixing such rates, acts in its legislative capacity and not in the contractual powers of the city. By agreement, or by state requirement, the acceptance of legislated rates may be constituted a contract. The franchise usually provides for initial rates and the basis for determining future rates that will be set by ordinance.

The city administrator charged with advising the city council on public utility matters should develop an auditing and analyzing organization consonant with the size of the city, and with consideration of the potential savings to city consumers which aggressive and adequate regulation will provide. A discussion of a practical program of regulation of utility rates and charges is included later in this report under the heading of "Administration of Utility Regulation."

Municipal Acquisition. The franchise usually includes a provision specifying the right of the city to purchase the utility under stated terms or by negotiation. This right, of course, is subject to many legal and economic obstacles. The restrictions on the amount of municipal indebtedness and the investor unattractiveness to strictly revenue bonds are only two of the major roadblocks to municipal acquisition. The political obstacles are even greater with forces in opposition to municipal acquisition having substantial funds for advertising and accentuating the disadvantages of municipal operation without similar presentation of advantages.

Other roadblocks include (1) the usual and expected taxpayers suits in such cases, (2) the work of determination of a fair purchase value, and (3) the many side issues arising from the above main obstacles. It is most likely that several years of proceedings would be required in most instances of acquisition of a public utility by a municipality, assuming that such end result could be achieved at all. The economic ability and legal right of the city to purchase and operate, or to purchase and resell to an efficient utility, is, however, the greatest possible spur to the company to provide good service at reasonable rates.

A franchise granted to the Cincinnati Transit Company for 25 years is subject to purchase by the city at any time upon the following conditions: (1) one year notice; (2) purchase price at par value of capital then outstanding; or (3) eminent domain proceedings to fix purchase price. The ideal purchase agreement is for the city to purchase physical property only, at an approved appraisal purchase price, with controlled selection of appraisers. Over a period of years anything else is subject to many unknown factors.

City Use of Utility Equipment. The use by the city free of charge of poles, conduits, and other distribution equipment of the utility installed in streets is a valid and reasonable provision in a franchise. The use of public rights of way for the utility business should not in any way detract from the city's use of its own ways. The installation of sufficient equipment to handle the additional city systems on the same poles is an efficient and space-saving device and avoids duplication of much equipment on the streets.

Franchise Fees and Free Services. City fees for a franchise for the extraordinary use of city streets for operating a utility business are valid and acceptable. Cities are constantly met with street costs which arise from causes difficult to determine. Further, the rights-of-way are of great value to utility companies.

Ninety-one cities reported in the survey conducted for MIS Report No. 202 on whether the city received some type of payment from the utility company. Sixty-two cities answered in the affirmative, but not all of these cities received payment from all utility companies operating in the city. The amount of the fee paid by the utility company is based on a percentage of gross receipts in 40 cities. The rate of payment varies from a low of one-half of one to a high of 7 per cent. The predominant rate is between 2 and 3 per cent. Twelve cities indicated that they received free service as a condition of the franchise.

Free utility services sometimes has a stigma of being contrary to the principle of our economic system. Free service to government by private business cannot be justified any more than free service to any other person or group. In most cases, this provision should be avoided in franchise agreements.

Model Franchise Guides. The National Institute of Law Offices (NIMLO) model franchise ordinance forms are excellent material for drafting clauses and provisions in franchise agreements. These forms, of course, must be used carefully with local conditions and desired results in mind. The point is that these forms are published as reliable guides and are to be used as guides, not a bible.

General Ordinance Regulation. The regulation of utility use of streets and ways, rates and

charges, service standards, safety requirements, installations and removals, and so on is based upon the exercise by the city of its police powers. A city ordinance can be used to establish these standards, methods, means, and procedures for operation of the utility within permissive state laws. Such an ordinance would, for example, state that "Whenever permission shall be granted to any person or corporation to engage in the business of electric illumination or power, the conduct of such business shall be subject to provisions of this chapter." The ordinance then would provide for all control standards necessary for street uses and service standards.

Such general ordinance provisions can include: requirements for inspection of meters; franchise period limitations; physical size, color, material, and location of poles; joint and multiple pole uses; quality of insulation, conduit, tubing, and wires; requirements for overhead or underground installations, cross wires, rooftop and tree protection, guard and guy wires, street light height; facilities removal requirements; public safety requirements and inspections; references to national service standards; street openings and restoration permits and cash deposits; insurance and bond protection for city; and penalty and enforcement clauses. These provisions enacted as general city police-power laws will then be above the franchise contract and can be changed as conditions change. Such provisions must be considered as police-power regulations to which any company thereafter must give compliance irrespective of other matters covered by the franchise.

Franchises then can be concentrated on matters which are not of police-power nature and which are generally contractual in nature. These matters will depend upon the local requirements relative to utility services, some of which have been discussed above. Others are:

1. Types of customer service: residential, government, commercial, and industrial.
2. Options for industrial customers to use their own transformers or for the company to supply transformers.
3. Coal cost adjustment clause reducing or increasing rates on cost of coal used in production of electric service.
4. Meter reading rates.
5. Estimated bill procedures.
6. Bill payment time and penalties.
7. Service discontinuances.
8. Reconnect charges.
9. Extension of electric lines for specified distance at no cost to customers.
10. Termination options and conditions.
11. Free services.

Administration of Utility Regulation

The administration of utility franchises and regulations requires a high degree of technical knowledge, particularly in the area of rate setting. Most cities are not large enough to have a separate department to administer and enforce the provisions of ordinances, franchises, and charters relative to utilities. Most of the cities surveyed for Report 202 indicated that the city manager, city attorney, and city engineer were responsible for utility franchise administration. These individuals, plus the finance director, often possess the knowledge necessary to do a creditable job of administration. In the average medium-sized and small city the major problems involved are connected with street uses. Included at the end of this section of the report is a discussion of what the small city can do.

A city department administering a utility franchise or regulating utility operations must establish its activities by work programs covering various phases of utility regulation. Cincinnati, Dallas, Corpus Christi, and Long Beach are cities with separate departments. A large city organization for regulation of utility companies would include the following personnel and activities.

Department Director. This official would have over-all responsibility for all activities. The director determines administrative policies and scope of regulation and recommends general operating standards for ordinance controls. He recommends contractual and franchise provisions for approval by the city council.

Utilities Analyst or Administrative Assistant. This officer makes analyses of reports from operating statements of utilities and renders statements and opinions as to revenues, expenses, and return to companies serving the city consumers. He contacts company officials where necessary to obtain necessary data or additional detail. He keeps informed as to all regulatory matters, methods, and procedures being advanced or used in the utility's industries and in the various regulatory agencies. He participates actively before administrative agencies regarding utility matters.

Auditor. This employee makes periodic audits of company books and prepares operating statements, generally for one year. He may examine in detail various expenses and accounting methods. For example, the depreciation expense accruals are examined as to (1) years of life expectancy used, (2) accelerated or straight-line methods, and (3) charges and credits to the depreciation reserve account as checked with retirements, additions, and current properties, and any other details that arise during audit of depreciation expense book entries.

City Attorney. The city law department should have one attorney whose activities include participation in utility regulation. This will involve writing ordinances; keeping familiar with the entire structure of federal, state, and local regulatory laws; and providing legal advice on utility matters.

Engineers. Engineers in a public utilities department, or other departments of the city, assist in regulating standards of service. In some cities contractual services of engineers at fixed time or unit costs may be used for testing standards of electric, gas, telephone, transit, or water services.

Inspectors. Various inspectors are needed for safety inspections of transit buses, electric poles and attachments, meters, and street restorations. These inspectors may be from various departments of the city or hired under contract at fixed rates for actual work performed for the city.

Franchise and Regulatory Ordinance Development. From time to time cities will be faced with the problem of developing new franchises and regulations, or amending existing regulations. These changes may result from the city's desire to make changes or from utility company needs. Cities can set up a systematic procedure for regulatory processes, including negotiating utility rates and charges. A procedure used by many cities includes the following:

1. The company furnishes the city with accounting statements and reports as specified by the city.

2. The department of public utilities or other city agency examines books, statements, and reports of company accounts and prepares a report of its findings.

3. City and utility representatives confer to reduce the area of disagreement and to define remaining issues to be settled.

4. The department completes its recommendations and transmits them to city council.

5. The council meets with utility representatives to discuss the issues to be resolved.

6. The council conducts public hearings, if necessary, under the charter, ordinance, or statutes.

7. The council makes its decision and acts by enactment of an ordinance.

Regulation of Street Uses. One of the most important aspects, as noted, of city regulation of utilities is control of street uses. This right is usually controlled by ordinance and specified in the franchise. It also is an area that the small city can control. Of interest is the fact that a number of cities reported that the quality of street restoration work done by utilities was not satisfactory. A detailed discussion of the problems is found on page 12 of Report 202, *City Government Relations With Public Utilities*.

Specific procedures for enforcing standards of street uses must be established by the city. In the large city the public works department will have inspectors assigned to check all street

openings and restorations. In the small city the street superintendent or foreman may have to accept the responsibility. In Cincinnati prior permits from the city are required for any installation in or on the streets. Installation requirements are based on fixed standards established by the city and are set forth in printed specifications. A deposit with the city is maintained by the companies against which the city draws vouchers from time to time. The deposit amounts in 1961 were $30,000 from the electric and gas utility and $2,000 from the telephone utility. As the city makes withdrawals the company is notified and replenishes the deposit fund to the above required amounts. Withdrawals are made based on numbers of inspections and actual work performed in street restoration by city forces. Restoration of street openings is standardized by a manual of city rules and regulations. City forces complete the final paving surfaces after inspections and approvals of base and fill are made by city inspectors.

Complaints. When complaints are received regarding utility operations an investigation and report should be made. In gathering information for the Report 202, *City Government Relations With Public Utilities*, cities were asked whether they had established specific procedures for investigating complaints against utility services. Although the majority of cities answered "yes," a surprising number of cities said they had no procedure or simply referred the complaint to the utility company (28 out of 96 cities).

In Cincinnati service complaints are handled by inspectors, rates and fare complaints by the utilities analyst or auditor, and street usage complaints by engineering or highway maintenance personnel. Other complaints are routed to the department of public utilities for analysis and necessary action. Facts regarding the subject of complaint are recorded on special forms, and every contact is made that is deemed necessary to make a decision on the justification of the complaint. The utility companies have special personnel for city departments to contact for complaints. Generally this is through the company rate department personnel, who investigate company actions and report back to the city. This is examined and the complainant is notified of the city action and findings. Acknowledgement and answer is made on all complaints. Answers can be made orally in minor matters; otherwise answers are written, and the method used is noted on the report form.

Standards and Tests. Standards established by state commission requirements usually are general. Local standards fixed by franchise agreement or by ordinance can be more specific, dependent to a great extent on the product standards available to the company. For example, the B.T.U. heat content of natural gas sold in Cincinnati is required by rate ordinance to be 1,050 B.T.U. per cubic foot of gas, whereas in some Ohio cities the requirement may be at 800 or 900 B.T.U. per cubic foot of gas which may be the type of gas available to the company. Electric voltages are established by the *National Electric Code*.

Outages and inferior services are controlled in the same manner as complaints, with formal proceedings if necessary before a state commission or city council committee. Fortunately, serious complaints on utility service are infrequent in most cities.

Meter tests are provided and are either made directly by a city engineer or by the company under close supervision by the city, with use of approved and sealed testing devices. Tests are made at no cost to the consumer if the meter is found incorrect; a minimal charge is made if meter is found to be accurate.

Rates and Charges. Most cities do not have the power to regulate utility rates. In some states the authority of the city depends on the type of utility. Of the cities surveyed for the MIS Report No. 202, approximately 45 per cent reported some local rate control. Cities always have the right to be heard in rate cases as an interested party.

There seems to be little quarrel with the city's role as a consumer as justification for protesting proposed rate increases to the state regulatory commission, assuming that the protest is valid. There is some weight of opinion, too, that the city has the responsibility to protect the interests of the general consumer. Several of the city managers of the 54 cities which reported they had not participated in rate cases indicated that they believe representation of consumer interests is a proper function of local government. One respondent modified his approval of this position to indicate that the city should act only when the other affected parties are unable to present a united effort in behalf of the consumer. The ability of such parties (for example, manufacturer's associations

and chambers of commerce) to most likely to concentrate their protests on the elements of the rate structure which are of primary concern to them. Perhaps a common viewpoint of those who believe that the city should be active regarding consumer interest is captured in this response: "The city's responsibility is to ascertain effect of any proposed rate increase on local consumers. If necessary, the city's role is to oppose such increase. . . ."

Four basic reasons for cities not participating in hearings before state regulatory bodies were advanced:

1. The city council's belief that the city should not participate.

2. A belief that the local utility has been providing adequate service at reasonable rates; therefore the city should not object unless the new rates are obviously "out of line."

3. Limited resources or no skilled personnel available for proceedings which are often lengthy, costly, and technical.

4. A high level of confidence in the state regulatory agency's ability to protect consumer interests thus making city participation unnecessary.

What the Small City Can Do. The smaller city may find it difficult to justify a full-time staff to regulate utilities, but utility regulation should not be neglected even in the smallest cities. Many of the problems of utility control can be worked out through person-to-person contacts between the city's chief administrator and the manager of the local utility. Consultants can be hired to assist city officials with difficult problems such as rate fixing. Iowa City, Iowa, has found this method relatively successful. Other steps that can be taken are:

1. Write a sound, administrable public utility franchise of the type outlined above. The clear, concise, and measurable definition of the rate base and rate of return will help the small city in regulating adequately rates and rate schedules.

2. Require periodic accounting and operations reports from the utility. Such reports can be reviewed by the finance director and by the city engineer to check conformance with state and local regulations on utility accounting and local service extension and construction requirements. These reports also help in coordinating utility-city operations on the city streets by keeping the city engineering and inspection teams informed of new or relocated underground structures.

3. Require an annual audit of the company's books by a qualified firm of public accountants appointed by or with the consent of the city council. Such an audit should be completed as soon after the fiscal year as possible. The auditor selected should have full knowledge of local, state, and federal regulations for utility accounting methods. In some states, the state commission may make an adequate audit of the financial affairs of utilities serving the city; if so, a separate audit by the local governing body is not necessary.

4. Check the rate base, actual rate of return, and rate schedules of the utility at regular intervals to assure conformance to franchise requirements. This should be done at least annually by the city finance officer.

5. Work with the state municipal league in preparing material for rate hearings before the state public utilities commission. Early in 1952, 27 Colorado cities participated in hearings before the state commission to protest proposed telephone rate increases and obtained substantial savings in telephone bills for Colorado residents. With the support of the cities, the League was able to call in utility rate consultants and organize a case for presentation. Cities in other states also have worked effectively through their municipal leagues to present cases before state commissions.

Regulation of Rates

In discussing regulation of rates and charges, several basic factors should be mentioned. They are:

1. State laws determine the power to regulate and the manner of participation by cities in utility matters such as fixing valuations, profits, and total allowable revenues.

2. Electric, gas, telephone, and water rates generally are determined in a different manner from transit service fares. Primarily this difference is in the method of fixing a reasonable return on invested capital. Electric, gas, telephone, and water utilities use a property in service valuation rate base as the measure of capital investment upon which a rate of return should be earned. Transit companies use either actual capital invested per books, or an operating ratio in which allowable revenues are determined as a percentage number over and above all costs of providing the service.

3. Utility rates charged consumers must be sufficient to provide for the cost of service. These costs stated in four major categories are: (1) operating costs, (2) depreciation, (3) taxes, and (4) capital costs.

Operation Costs. These are the day-to-day expenses in conducting the utility business. They include costs to produce or purchase the utility products of electricity, gas or water; costs to maintain and service the transmission and distribution system of poles, wires, mains, buildings, equipment, and properties used in supplying the utility service; customer billing and collection costs; administrative costs covering salaries and wages, pensions, welfare fund payments, and so on.

1. Allocation of Costs to Specific Areas. Utility companies frequently serve a number of cities, villages, and communities. Expenses occur for the over-all company system and service areas. To determine the amount of costs applicable to supplying service to an individual city, various formulas and factors are used.

In the electric utility industry the specific city's measured or calculated electric kilowatt peak demand will be stated as a percentage of the total over-all company kilowatt peak demand. This percentage applied to total "production" costs will result in the applicable costs to the city. Transmission and distribution expenses are sometimes allocated to specific areas based on the ratio of billed kilowatt hours of energy used in the area to the total company system kilowatt hour sales. Customer accounting costs are generally allocated on the basis of number of customers. General and administrative costs can be allocated on the basis of the average ratio of all the other expenses. These allocation factors should be thoroughly examined and understood so that a reasonable allocation of costs will be included in the rate requirements.

In the gas industry, expenses can be allocated on the same general basis as electric, except that the unit of usage is 1,000 cubic feet of gas (m.c.f.) in determining peak demand and the billed volume of gas sales. The unit of usage can also be stated as heat units or therms. The costs of water utilities can be allocated on the same basis as electricity and gas except the measurer is 100 or 1,000 gallon units.

Rates usually are fixed area-wide in the telephone industry. To allocate costs between customers by cities is frequently impractical because toll-free service may apply to several cities in the area. Transit fares most often are area-wide, and allocation of expenses is unnecessary. Fares are sometimes fixed on a distance basis from a core city area. This is discussed in the later paragraphs under "Rates and Fares."

2. Regulating Operating Expenses. Expenses incurred in operating the business are considered as being under utility management discretion and control. Regulation of these expenses is limited to differences of allocation to the specific area, or in cases where abuses of discretion are flagrant and apparent in the expense charges.

Some regulatory agencies use various ratios to check reasonableness of operating costs, and comparing these ratio costs to prior years costs, or to comparable companies costs to provide a usable standard of measuring reasonableness. These include: total electric costs per kilowatt hour; gas costs per 1,000 cubic feet (m.c.f.); telephone costs per telephone in service; and water costs per 1,000 gallons.

Depreciation Expense. Upon purchase, any business property is on the way to obsolescence, deterioration, and retirement, and this is an accepted cost of every business operation. Annually, business will charge against operating revenues an amount estimated to equal that portion of the property used up (worn out or not longer of value) for that period in the production of the commodity or service. This charge is known as depreciation. It can be charged to operating expense and is

represented by a portion of the surplus after all expenses, or it can be funded in a depreciation reserve. The cash amounts taken from this reserve are reinvested in replacement properties.

Depreciation costs in many companies account for more than 20 per cent of total expenses. This sizable portion of costs should be given close examination, and all factors should be considered relating to: (1) consumers who pay the costs; (2) company expansion needs; and (3) interests of investors who provide funds for property and expansion of service.

The amount of depreciation expense per year is based generally on the expected number of years useful life of the property divided into the total property cost. A $1,000 property of 10 years life would cost $100 per year. This is straight-line depreciation. Since 1954 the federal income tax laws have permitted the use of accelerated methods of computing allowable depreciation charges against operating revenues. These methods allow use of greater amounts than the straight line in the early half of estimated life and lesser amounts than straight line in the later years. For the full life of property the company will obtain full cost depreciation by either method. The use of accelerated depreciation methods reduces income taxes in later years. If property is replaced or extended, the net company taxes become permanently adjusted to the degree that the accelerated depreciation method is used for replaced and new properties.

For rate-making purposes, most utilities will use straight-line depreciation to keep these annual costs more uniform; whereas for tax purposes they may use accelerated depreciation to achieve lower taxes. The tax savings are handled in various manners by various regulatory agencies. Some states, like Pennsylvania, Ohio, and others, require that tax savings be passed on in lower rates to consumers. Other states and federal agencies allow companies to accumulate tax savings into a "deferred tax reserve." Wisconsin adds the tax saving as part of the depreciation reserve in the rate base with a subsequent reduction in capital costs. The Federal Power Commission in March, 1961, initiated a procedure of including the deferred tax reserve amount as part of a company capital invested in property at 1.5 per cent return. This in effect lowers the over-all allowable rate of return on capital on the premise that the tax reserve is an interest-free loan from the federal government available to any company, including utilities, who elect to use the accelerated depreciation tax benefits. The Commission reasoned that something should be allowed as a return on these reserves and settled upon a 1.5 per cent return. This effects a lower over-all cost of capital for rate purposes.

Life expectancy of various types of utility property is the subject of controversial and varied regulatory decisions. Life averages have been established for various types of utility property by the Internal Revenue Service. These can be used as a guide only. Any depreciation life expectancy for a property which can be shown to be reasonable under local circumstance generally will be allowed by regulatory agencies. Reasonable depreciation charges are of major importance to investors seeking to provide capital funds for plant expansion.

Tax Expenses. Privately owned utility companies are subject to local, state, and federal taxes. Taxes payable by law are valid costs of service, chargeable against the company revenues provided by consumer rates. Tax expenses are charged against revenues, are collected and accumulated currently in day-to-day operations, and are paid at later specific dates fixed by law. Cash funds held by the company are recorded as accruals and reserves for future tax payments. Regulatory agencies will consider that 50 to 60 per cent of accrued tax funds are available for use as cash working capital. This lessens the need for investor capital and therewith reduces capital costs of the business, reducing one of the elements of cost effecting rates.

Costs of Capital. Property used to produce, transmit, distribute, and carry on a utility business is purchased or constructed through use of funds from various sources. The chief means of obtaining corporate funds is through (1) issuance of bonds in exchange for money loans; (2) sale of stock certificates to persons who, as stockholders, become owners of the business; and (3) retention of corporate surplus profits, thus increasing valuation for existing stockholders.

1. Bond Debt Capital. Interest on bond loans and repayment of the principal is a primary liability of a business. Failure to pay both is generally a forfeiture which subjects the business to many penalties, including foreclosures upon the mortgaged assets of the company. The principal of debt capital is returned through depreciation expenses accrued into the depreciation reserve which provides for the general return of invested capital. Buyers of bond securities are in effect

lenders of mortgaged loans to the company, and bond indentures generally specify depreciation accrual practices in the loan conditions.

The interest on debt capital is, however, a capital cost that is fixed and certain under the loan contract. While interest cost is a primary expense, it is not an operating cost, and it is generally shown in company statements as a deduction from net income. For rate purposes, debt capital costs are fixed and readily determinable from known debt amounts and known interest rates.

2. Preferred Stock Capital Costs. Preferred stock dividends are payable with a high degree of certainty, and assume very much the same features as utility debt capital. To an established utility company the stated percentage dividend rate on preferred stock is for all intents and purposes an annual fixed cost. For rate purposes, the cost amount is determinable from the amount of preferred stock capital and the preferred percentage dividend rate payable by the company.

3. Common Stock Equity Capital Costs. Investors of capital in common stock of the utility are the owners of all net earnings after all expenses and after fixed capital costs are paid. Therefore, the undistributed earnings, commonly referred to as "earned surplus," are part of the over-all common stock equity capital. For rate fixing purposes, determining the allowable amount of return on this common stock equity is a matter of judgment based on factual knowledge of financial returns being earned by business of similar risk. This requires a judgment for the specific company based on experience and allowed returns on the general area of like risk enterprises. The amount of dollars of paid-in common stock capital, plus the amount of surplus, on the books of the company, is designated the total "book value" of common stock equity.

4. Capital Invested in Property. For fixing rates many regulatory commissions, including the Federal Power Commission, use the net investment original cost of property as the basis for allowing capital costs. This is an amount of capital equal to the amount of net (depreciated) valuation of property used and useful in the utility service, and as approved and recorded on company books.

5. Property as Rate for Capital Costs. The allowable capital costs can be stated in simple, clear, and easily understood terms as being the income which permits a utility to (1) meet debt interest charges; (2) meet preferred dividend charges; (3) pay a reasonable dividend on common stock; and (4) perhaps a certain amount of earnings surplus as a cushion of protection for the first three items.

Property in service in which capital is invested is the "rate base" upon which capital costs are determined. The property amount representing total investor capital is the total gross cost of property less depreciation. This is the "net rate base" upon which a percentage rate of return is applied to fix the total amount of capital costs. The variations in methods of fixing property valuation; the amount of depreciation to be deducted; and the rate of return on net rate base are three major areas of difficulty in fixing utility rates.

Rate Base Valuation Methods. The Federal Power Commission in regulation of utilities uses the original cost of the property at the time it was first placed in public use. This is today (in the main) the book recorded cost of the property as certified and reported by utility companies. The Federal Power Commission also uses the *recorded* depreciation reserve as the deduction from gross property to arrive at the net rate base. This approach is simple, direct, definite, and certain as represented by the approved records and accounts of the utility. This method also is used by many state commissions and city regulatory agencies.

Other property valuation methods used for fixing capital costs include (1) reproduction cost new and (2) fair value. For example, the Ohio Utilities Commission is required by state legislation to use the "reconstruction cost new less-observed depreciation" valuation of property in service as the sole measure of capital costs. This means that (1) all properties must be re-evaluated to the amount of dollars it would cost to reconstruct the property today, and (2) the depreciation deduction must be based on evidence of observation of the property condition. Actual valuations of properties under this statutory method have resulted in wide variations of expert opinions and estimates, especially in the area of observed depreciation. The commission, nevertheless, has determined "rate bases" bottomed on these estimates.

Some regulatory commissions are required by law to fix a "fair value" of property in service to be used as a rate base. This gives commissions wide latitude in valuation methods and has (in various states) resulted in use of reconstruction cost valuation, original cost valuation, and various combinations of both.

Where cities participate in utility rate-making procedures, it is of utmost importance to state that the fixing of utility property valuation is for the purpose of fixing the amount of capital costs. The valuation amount coupled with the percentage rate of return should be judged by how much money is thereby provided for payment of debt capital interest, preferred stock dividends, and common stock equity profits.

The Rate of Return. Once the rate base is settled, the amount of allowable total capital cost is determined by applying a percentage rate of return to the rate base amount. The rate of return as used for this purpose provides for all capital costs including interest on debt capital, preferred stock dividends, and return on common stock equity. Therefore, the rate of return represents the composite capital cost. It is necessary to examine into the parts to arrive at the whole rate of return. This can be best illustrated by an example.

Assume the property of a company is recorded at a gross amount of $125,000,000 original cost, less the depreciation reserve on books of $25,000,000. Thus, the net rate base is $100,000,000. It is assumed that all capital funds are invested in net property in service. The funds invested in property are from the following sources; bond debt capital $50,000,000 at 4.0 per cent interest; preferred stock capital of $10,000,000 at 5.0 per cent; and common stock equity of $40,000,000 for which it is determined to allow a rate of 10.0 per cent. Stated in tabular form, the composite rate of return would be as follows:

	Capital	Cost Rate	Ratio to Total	Weighted Rate (2) x (3)
Debt Capital	$50,000,000	4%	50%	2.0%
Preferred Stock . . .	10,000,000	5%	10%	0.5%
Common Equity	40,000,000	10%	40%	4.0%
		The rate of return		6.5%

Variations in capital components, including use of various reserve funds invested in property at zero or 1.5 per cent return, will of course vary the composite rate of return. Applying the 6.5 per cent rate of return to the $100,000,000 net rate base provides $6,500,000 for total capital costs. This is applied $2,000,000 for fixed debt interest at 4 per cent; $500,000 for fixed preferred dividends at 5 per cent; and $4,000,000 for common stock dividends and surplus.

Common Stock Equity Capital. Common stock capital does not have a fixed rate of return as do the other types of capital. While utility rates to consumers are established to provide for all capital costs including common stock return, the fortunes of good or bad years of business operation fall to or upon common stock holders. It is felt then that something higher than fixed debt and preferred costs should be allowed as the potential return for common stock. The amount of this return on common is generally derived from analyses of average returns earned or allowed in like enterprises, such as banks, insurance companies, and other utility companies. In recent cases before the Federal Power Commission, utilities were allowed a 10 per cent return on net book equity capital as a component part of the rate of return. Some state commissions, however, have stated in their opinions that returns on common stock equity amounted to 15 per cent on net book equity capital in cases where the rate base was required by law to be fixed on the "reconstruction cost new" method.

Market Value of Common Stock. Market value of common stock is generally higher than company book values, so that a 10 per cent return on book value may be only 6 to 8 per cent on the market price at a given time. The market prices bid by buyers of common stock represent diverse views and desires of many people. Book values on the other hand represent a definite and certain accounting valuation that retains a measure of usable stability for fixing rates. The natural gas industry has prospered and grown under regulation based on "book value" to the fifth largest industry in the United States in a period of less than 30 years.

Allowances by regulatory agencies of excessive earning tend to increase the bid prices for common stock of the utility and consequently bring still higher earnings demands to keep the stock prices from falling. Utility earnings on common stock for many years past have been so consistent in earnings and dividends as to be considered by many to be on a par with bonds of industrial companies with normal business competition and risks.

Capital Costs Allocated to a City. Where a utility serves more than one city, the determination of allowable capital costs can be determined by allocating the amounts of capital used to provide the service. The gross property valuation of plant used to provide the service less the depreciation reserve will equal the total sum of capital invested. Splitting this sum into various capital components is done by applying the company capital ratios. The average percentage cost of debt capital, preferred stock costs, and return for common stock can be calculated to give the total capital costs.

Consumer Rates and Charges. Once the total cost of service has been settled, the rates are established for billing consumers for the service. An existing rate structure is adjusted to new rates where an increase or decrease is ordered. The utility will have records of its latest years volume of sales at the various rate steps of its rate schedules, which at the old rates produced known revenues. Applying the percentage increase or decrease to the old unit rates will give the pro forma or estimated revenues desired at the new rates.

Utility rate structures are in many variations, from a straight unit rate regardless of demand or quantity of usage to complicated combinations of demand charges and quantity usage charges. Fixing rate structures traditionally has been considered as a company management matter. However, while utility suggestions as to rates and charges for service are a proper starting point, it is very necessary that the block or step rates be checked out to determine typical bills for typical usages. For example, in electric rates a typical residence bill will be for 100, 250, 750 and 1,000 kilowatt hours per month. Industrial and commercial usages have typical averages in various classifications. New rates and old rates must be calculated out to these average typical bills to judge the actual effect upon the consumers of an increase or decrease in rates. The Federal Power Commission issues an annual booklet "Typical Electric Bills for Consumers" which provides helpful material for comparisons of typical bills of all cities in the United States.

1. Electric Rates to Consumers. Residential rates are in block form. The first two blocks cover both demand and energy cost. Subsequent unit rates are set lower to cover additional energy production costs. For example:

First 50 kilowatt hours @ $.05 per kilowatt hour
Next 150 kilowatt hours @ $.04 per kilowatt hour
Next 300 kilowatt hours @ $.02 per kilowatt hour
Over 500 kilowatt hours @ $.015 per kilowatt hour

Typical Bills:

	Bill	Per Kilowatt Hour (avg.)
100 kilowatt hours	$ 4.50	$.045
250 kilowatt hours	9.50	.037
500 kilowatt hours	14.00	.028
1,000 kilowatt hours	19.00	.019

Rates charged to commercial users such as stores are similar to residential rates but may be slightly higher in all blocks. Industrial rates generally include a demand charge and an energy charge. Customers establish a maximum power demand which the utility must provide as a constant, ready, and instantaneous service. Fixed equipment, production, and transmission costs are thereby established on the peak load which the utility must have available for the system. These fixed costs are recovered from power customers as the "demand" charge.

Energy rates paid by power customers cover the variable additional costs to produce and transmit the additional energy to customers. The energy rates to power customers are generally similar to or lower than the bottom rates of residential customers.

2. Gas Rates to Consumers. Gas rates are less complicated than electric because variations in demand are not so important and service is supplied in a more uniform manner. Rates per 1,000 cubic feet (or per 100 cubic feet) are on a gradual declining basis as use of the product increases. In rates based on a "therm" basis (100,000 B.T.U.) of heat content, customers buy heat units, which seems to be a more scientific method of billing for the service. However, where heat content of the gas is fairly uniform, the straight volume rates are satisfactory.

3. Water Rates. Water is billed to the customer either on a flat rate or on a measured rate. The flat rate is a charge made without metering. The amount is generally based on the size of the hourse, size of the meter, or number of plumbing fixtures, etc. This method is unsatisfactory to consumers and in many cases results in waste of water.

The measured rate is based on gallons or cubic feet consumed. As in the case of electrical rates, block rates are frequently established. Minimum bills are sometimes established by size of meter with an allowed usage of water as would ordinarily be calculated out to the amount of the minimum charge. Fire protection charges are based on a charge per hydrant. Such a charge is an expense to the municipality providing fire protection. This is due to the fact that the service amounts to a "readiness to provide the service" rather than a charge for actual water usage. These charges range from $5 to $100 in various cities and are generally at lower than cost to provide the service. In municipally owned water systems, there generally is no charge for fire hydrant purposes.

Telephone Rates to Consumers. There are, today, many variations of telephone services from the single residence or commercial telephone line to the most elaborate and efficient communication systems for large organizations. Charges are based on requirement to provide revenues sufficient for the cost of the service desired.

Rates are generally established by telephone exchange areas and by bands of service areas. Residential rates include single, two and four-party lines, and limited usage rates. The business rates are usually substantially higher on the basis of the value and usage of the service. Due to the area-wide service factors of telephone operations, nontoll rates are usually established by state commissions on the service-area basis, so that various cities in such areas participate as a customer group for rate and usage purposes.

Transit Fares. Transit fares include:

1. Cash Fares. In nonsubsidized operations the base fares today range from 20 to 30 cents for a basic five to seven-mile trip.

2. Token Fares. These are generally at a 10 to 15 per cent discount from cash fares.

3. Transfers. Once free, there is generally a 1 to 3-cent extra charge for the transfer privilege today within the major municipal areas.

4. Zone Charges. Many cities have established zones on a radius from a central point in the core of the city. Basic fares are thus fixed for travel within a zone, with generally a 5-cent extra charge for interzone travel.

5. Weekly Permit. This is a promotional fare intended to stimulate use of buses at a low (usually 10 cents) fare. The initial permit cost varies from $1.00 to $1.50. The average fare per ride for 12 rides should be less than the total cost of 12 token fares.

6. School Fares. These fares are, in most cities, subsidized by other bus riding customers. Generally, school and children fares are from 50 to 75 per cent of adult fares. Such fares may or may not meet the cost of the service. Whenever possible, such fares should be placed on a "paying their way" basis.

7. Charter Service. This is a use of buses by groups, generally by contract. Such service is usually off-peak business and is generally good business for transit companies having great numbers of buses for peak load periods which are available for this service at off-peak times.

8. Contract Service. This service is an "express" service from outlying suburbs direct, nonstop to the downtown area. A group of neighboring bus riders may enter into a contract for this express service from a central point in their neighborhood at a cost slightly higher than regular

fares. For example, a group of 30 to 50 persons may agree to pay a daily round-trip cost of $1.00 for this special service, with a minimum payment guaranty of $20 each way to the transit company.

9. Special Events Fares. Special events, such as exhibition and sporting events occurring at fixed locations generally require substantial automotive transportation. Many transit companies provide a special service from various parking areas in the city. Generally this is at fares payable individually each way.

A Concluding Statement

Cities in a public utility service area will have many interests in common, but will also have some conflicting interests. These matters should be recognized and reconciled, and cities should join in an effort to represent consumers in the best over-all manner. By a joint effort cities can afford to engage in state and federal regulatory proceedings. The sharing of costs in utility regulatory proceedings will pay substantial dividends to consumers.

Cities in Iowa have had some success and experience in joining together for the purpose of utility regulation. A gas utility had proposed that rate increases be adopted by several cities. One city, Fort Dodge, was made the test case in court. The other cities combined to finance the employment of experts. Intervention in the case was done as a "friend of the court." If these cities had not combined, costs would have been extremely high. The utility company serving a large area has more resources than most cities. Cities by combining together can best promote the interests of consumers.

Acknowledgement. Grateful acknowledgement for preparing this report is made to Paul J. Doppes, administrative officer, department of public utilities, Cincinnati, Ohio, and to George W. Howie, director, department of public utilities, Cincinnati, Ohio, for his assistance to Mr. Doppes in preparing this report.

Appendix A

PATTERNS OF UTILITY REGULATION

Regulation by cities of public utility operation has undergone some changes in the past decade.

Today, State Commissions regulate rates, safety standards and service standards in all but 8 of the 50 states. Alaska, Iowa, Minnesota, Mississippi, Nebraska, South Dakota and Texas do not have state commission regulation.

In Iowa the State Commerce Commission regulates utilities and in city limits the utilities are under control of the municipal authorities. In Texas, cities of over 2,000 population have power to regulate utilities rates and service. In Nebraska, the Railway Commission has powers over utility franchise areas, over accounts and records and upon complaint of a city may investigate rates and service. The Colorado Commission does not regulate utilities operating in 13 home-rule cities. In Kansas, cities may regulate utilities subject to appeal to the State Commission. In Ohio utilities are regulated by municipal ordinances subject to appeal to the State Commission and in unincorporated areas the State Commission has original jurisdiction.

Where no regulatory authority exists there still would be regulation. Under common law, utilities must render service at reasonable rates and without discrimination.

Permits to initiate service are required in 34 states. In Iowa certificates are required for areas outside city limits; in Michigan a certificate is required where competition is involved in an area. States where certificates are not necessary under normal conditions are Connecticut, Florida, Georgia, Louisiana, Massachusetts, Montana, Ohio, Oklahoma, Oregon, Texas, Vermont, Washington.

Permit to abandon service, in states having state commissions, are required in all such states except Florida, Massachusetts, Texas, and Washington.

Of the 42 state commissions regulating rates all but Tennessee and Wyoming have prescribed a uniform system of accounts and annual financial report form. These are available for examination by municipalities.

In fixing valuation of the rate base for capital investment return, 26 of the states use original cost of property (also used by Federal regulatory agencies); 9 states prescribe use of "prudent investment" valuation of property; 12 states prescribe use of "fair value of property." The state of Ohio is the only state to prescribe by statute the exclusive use of "reproduction cost-new" property valuation. Nebraska and Iowa prescribe no method of valuation of property for rate base purposes.

Source: Prepared by Paul J. Doppes and George W. Howie, department of public utilities, Cincinnati, Ohio.

Appendix B

REGULATORY FUNCTIONS OF STATE PUBLIC UTILITY COMMISSIONS

State	*Commissions have jurisdiction over rates of privately owned utilities rendering the following services*												*Commissions regulate municipally owned public utilities as to*			
	Electric light and power	*Manufactured gas*	*Natural gas*	*Street railways*	*Interurban railways*	*Motor buses*	*Motor trucks*	*Water*	*Telephone*	*Telegraph*	*Oil pipe line*	*Gas pipe line*	*Accounting*	*Rates and rate schedules*	*Issuance of securities*	*Service to consumers*
Alabama	★	★	★	★	★	★	★	★	★	★	..	..	..	..	..	..
Alaska	(a)	★	★	..	..	..	..	★	(a)	(a)	★	★	★	★	..	★
Arizona	★	..	★	★	★	★	★	★	★	★	..	(b)	..	..	..	..
Arkansas	★(c)	★	★	★	★	(d)	(d)	★	★	★	(d)	★	..	..	..	..
California	★	★	★	★	★	★	★	★	★	★	★	★	..	..	..	..
Colorado	★	★	★	★	★	★	★	★	★	★	★	★	(e)	(e)	(e)	(e)
Connecticut	★	★	★	(f)	(f)	★	★	★	★	★	★	★	★	..	..	..
Delaware	★	★	★	★	★	★	★	★	★	★	..	..	..	..	..	..
Florida	★	★	★	..	★	★	★	(g)	★	★	..	..	..	..	..	..
Georgia	★(c)	★	★	★	★	★	★	..	★	★	..	★(b)	(e)	(e)	(e)	(e)
Hawaii	★	★	..	..	..	★	..	★	★	..	..	..	..	..	..	..
Idaho	★	★	★	★	★	★	★	★	★	★	..	★	..	..	..	..
Illinois	★	★	★	★	★	★	★	★	★	★	★	★	..	..	..	..
Indiana	★	★	★	★	★	★	★	★	★	★	..	★(b)	★	★	★	★
Iowa	..	..	..	..	★	★	★	..	..	..	..	..	..	..	..	..
Kansas	★	★	★	★	★	★	★	★	★	★	★	★	..	..	..	..
Kentucky	★	★	★	..	..	..	..	★	★	★	★	★	(e)	(e)	..	(e)
Louisiana	★	..	★	★	..	★	★	★	★	★	(h)	(i)	..	..	..	..
Maine	★	★	★	★	★	★	★	★	★	★	..	★	★	★	★	★
Maryland	★	★	★	★	★	★	★	★	★	★	..	..	(j)	(j)	(j)	(j)
Massachusetts	★	★	★	★	★	★	★	★	★	★	..	..	★	..	★	★
Michigan	★	★	★	(f)	(f)	★	★	..	★	★	★	★	★	..	..	..
Minnesota	..	..	..	(f)	(f)	★	★	..	★	★	..	..	(k)	(k)	(k)	(k)
Mississippi	★(c)	★	★	..	..	★	★	★	★	★	..	★(i)	..	..	..	..
Missouri	★	★	★	★	★	★	★	★	★	(b)	..	(b)	..	..	..	..
Montana	★(c)	★	★	★	★	★	★	★	★	★	★	..	★	★	..	★
Nebraska	(l)	..	..	★	★	★	★	(l)	★	★	★(h)	★(h)	..	..	..	..
Nevada	★	(f)	★	(f)	(f)	★	★	★	★	★	★	..	..	..	..	..
New Hampshire	★	★	★	★	★	★	★	★	★	★	★	★	(e)	(e)	(e)	(e)
New Jersey	★	★	★	★	★	★	..	★	★	★	★	★	(m)	(e)	(n)	(e)
New Mexico	★	★	★	(o)	(o)	(o)	(o)	★	(o)	(o)	(o)	(o)	(p)	(p)	(q)	(p)
New York	★	★	★	★	★	★	★	★	★	★	..	★	(r)	(r)	..	(r)
North Carolina	★	★	★	..	..	★	★	★	★	★	★	★	..	..	..	..
North Dakota	★	★	★	..	★	★	★	★	★	★	★	★	..	..	..	..
Ohio	(s)	(s)	(s)	(t)	★	★	★	(s)	★	★	★	★	..	..	..	..
Oklahoma	★	..	★	★	★	★	★	★	★	★	★	★	..	..	..	..
Oregon	★	★	★	★	★	★	★	★	★	★	..	..	..	..	..	..
Pennsylvania	★	★	★	★	★	★	★	★	★	★	★	★	(e)	(e)	..	(e)
Rhode Island	★	★	★	★	★	★	★	★	★	★	..	..	(r)	(r)	..	(r)
South Carolina	★	★	..	★	★	★	★	★	★	★	..	..	..	..	..	..
South Dakota	..	..	..	..	★	★	★	..	★	★	..	..	(k)	(k)	(k)	(k)
Tennessee	★	★	(u)	..	★	(v)	(v)	★	★	★	..	..	..	..	..	..
Texas	..	..	★	..	..	★	★	..	..	..	★	★	..	..	..	..
Utah	★	★	★	★	★	★	★	★	★	★	..	★	..	..	..	..
Vermont	★	★	..	★	★	★	★	★	★	★	..	..	(w)	(w)	(c)	(w)
Virginia	★	★	★	★	★	★	★	★	★	★	..	★	..	..	..	..
Washington	★	★	★	★	★	★	★	★	★	★	★	(x)	..	..	..	..
West Virginia	★	★	★	(f)	(f)	★	★	★	★	★	★	★	★	★	..	★
Wisconsin	★	★	★	★	★	★	★	★	★	★	..	★	★	★	..	★
Wyoming	★	★	★	(f)	(f)	★	★	★	★	★	★	★	★	★	..	★

(a) Act creating the commission provides that it assume these functions upon enactment of enabling legislation in the January, 1960, session of the legislature.
(b) Intrastate.
(c) Authority does not extend to rural electrical cooperative units.
(d) Under Commerce Commission jurisdiction.
(e) Regulated only as to operations outside limits of municipality.
(f) No street or interurban railways operate as such in Michigan, Minnesota, Nevada, West Virginia, Wyoming and Connecticut.
(g) Limited jurisdiction over water and sewer utilities.
(h) If common carrier.
(i) Limited jurisdiction over natural gas pipe lines.
(j) With the exception of water.
(k) Telephone only.
(l) All publicly or municipally owned and exempt from jurisdiction by statute.
(m) Only annual report required.
(n) If plant has been adjudged to have general status as public utility.
(o) Under Corporation Commission jurisdiction.
(p) No commission jurisdiction.
(q) Initial issues and refunding.
(r) Certain jurisdiction over some types of municipally owned utilities.
(s) Upon appeal within corporate limits; original jurisdiction in unincorporated areas.
(t) Only operations outside of corporate limits not contiguous.
(u) Local distribution only.
(v) Interurban.
(w) Electric only.
(x) No intrastate pipe lines in Washington.

Source: *The Book of the States – 1960-61* (Chicago: Council of State Governments, 1960) p. 301.